ENGINEERS AUSTRALIA

Engineering Heritage Victoria

CEREMONY REPORT

Wheelers Bridge

Heritage Recognition Ceremony

at Wheelers Bridge on the Creswick-Lawrence Road, Lawrence, 12 km north of Creswick, Victoria

Saturday 15 June 2013

Cover Photograph:

Unveiling the interpretation panel and marker.
Left to right: Marlene Kanga, National President, Engineers Australia,
Owen Peake, Chair. Engineering Heritage Victoria,
Councillor Bill McClenaghan, Mayor of Hepburn Shire Council.

Image: Emily James

CONTENTS

1 Introduction:

The ceremony for the marking of **Wheelers Bridge** with an **ENGINEERING HERITAGE MARKER** were conducted at on 15 June 2013 on the roadside just north of the bridge at 10:00 am.

Attendance: 49

2 Invitations:

There were two forms of invitation:

2.1 Written invitation (see Attachment 10) sent by mail to 162 people listed by Engineering Heritage Victoria. This list consisted primarily of local dignitaries, council representatives, politicians, heritage industry figures and other stakeholders.

2.2 Email invitations (see copy of flyer at Attachment 1) sent to the following address lists:

- Engineering Heritage Victoria list (approx 350 on list)
- Victoria Division Board of Engineering members (approx 40 on list)
- Bendigo Regional Group (number not known - say 200)
- Ballarat Regional Group (number not known - say 200)
- Engineering Heritage Australia Member and Corresponding Members (45 on list)

Hence the total number of invitations issues was about 835. With at total attendance of 49 at the ceremony the response rate is approximately 5.8%.

3. Distinguished Guests and Apologies:

Listed on the Running Sheet. See Attachment 2.

4 Program & Running Sheet:

The Running Sheet (Attachment 2) shows:

- Those who spoke at the event and timing
- Suggested speech topics for various VIPs.
- Distinguished Guests who were acknowledged
- Apologies received who were acknowledged

The Master of Ceremonies was Mr Mike Caldwell, Ballarat Regional Group of Engineers Australia.

5 Speech Notes:

Speech Notes are attached at Attachments 3, 4, and 5.

6 Ceremony Handout:

A 12 page A5 ceremony handout was prepared and handed out to all those who attended the ceremony. The handout was based largely on the material from the Interpretation Panels. 100 copies were printed. A copy can be obtained from Owen Peake.

7 Media Release:

A copy of the Media Release is at Attachment 6. The Media Release was arranged by the National Office of Engineers Australia.

The Courier newspaper in Ballarat published an article on 16 June titles “Heritage Bridge likened to ‘NBN of its time’.

8 Media Articles:

8.1 The Courier newspaper in Ballarat published an article on 16 June titles “Heritage Bridge likened to ‘NBN of its time’.

8.2 **ARTICLE FOR ENGINEERS AUSTRALIA MAGAZINE**

Article written by Owen Peake is at Attachment 7.

8.3 ARTICLE FOR EV NEWSLETTER

Article written by Owen Peake is at Attachment 8.

8.4 ARTICLE FOR ENGINEERING HERITAGE AUSTRALIA NEWSLETTER

Article written by Owen Peake is at Attachment 9.

9 Letters of Thanks:

Letters on EA Victoria Division letterhead were sent out over Glenda Graham’s signature to the following:

A typical draft letter for the above is at Attachment 11.

Item No.	Description	Funding Source	Amount

10 Costing

Costs of the project were incurred as per the following table:

1	Interpretation Panel Manufacture - Advanced Group	Hepburn Shire Council	$445.50
2	Graphic Design of Interpretation Panel - Richard Venus	EHA Budget (through National Office)	$400.00
3	Provision of 300mm diameter EHA marker from EA National Office	EHA Budget (through National Office)	$300 (estimate)
4	Manufacture of Mounting Frame for Interpretation Panel	Hepburn Shire Council	$1000.00 (estimate)
5	Installation of Interpretation Panel Mounting Frame	Hepburn Shire Council	$400
6	Car travel costs	EHV Budget	$300.00
7	Printing of 4 copies of nomination document	EHV Budget	$50.00
8	Hire of PA system by EA Victoria Office	EHV Budget	$115.00
9	Printing of Handout documents (100 off) by EA Victoria Office	EHV Budget	$400.00 (estimate)
10	Provision of morning tea supplies - fruit slices	50/50 Hepburn Shire Council/EHV Budget	$150
11	Provision of coffee van	50/50 Hepburn Shire Council/EHV Budget	$400.00
		TOTAL	**$3560.50**

11 Allocation of Tasks

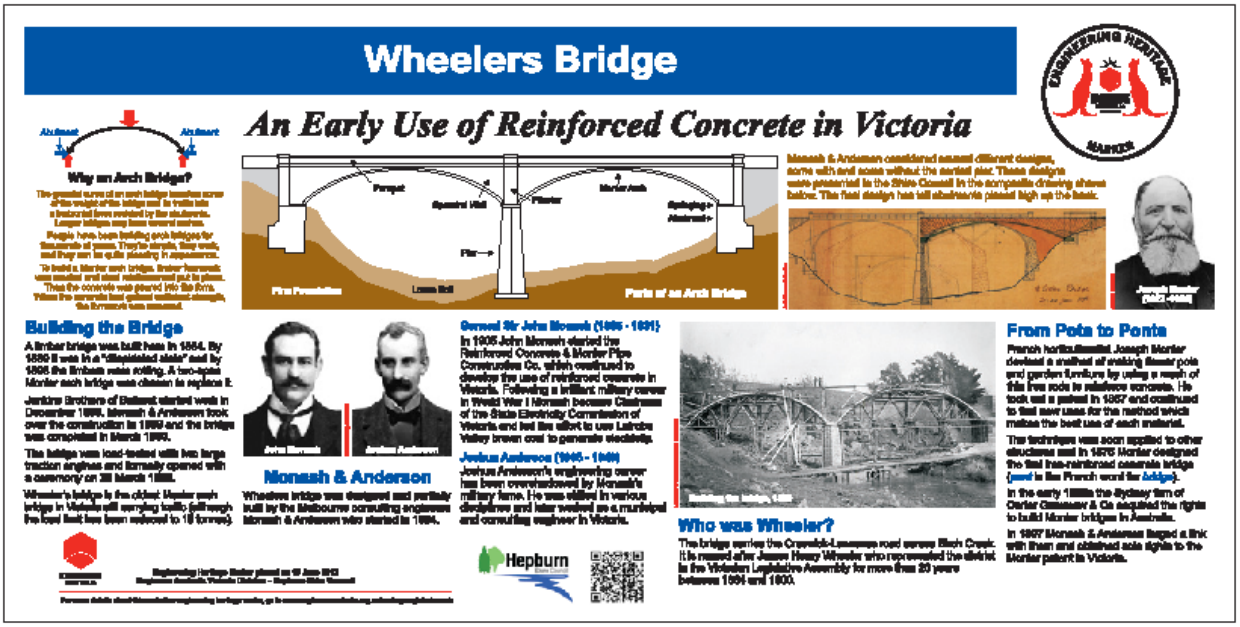
A schedule showing the Allocation of Tasks between the various stakeholders was used. This document ensured that all details of organisation were attended to and served as a check list in the run-up to the event.

The tasks of planning of the ceremony were primarily shared between Jessica Bradley in the Victoria Division EA office and Owen Peake, EHV volunteer.

12 Interpretation Panel:

The interpretation panel has been erected on a steel support frame on the north bank of Birch Creek at Lawrence. The panel is mounted on the western side of the Creswick-Lawrence Road in front of a farm house under a large gum tree facing the bridge. The panel is 1200 mm wide and 600 mm high and digitally printed on an aluminium substrate. The Engineering Heritage Marker plate is mounted on the cross bar below the interpretation panel. This marker is the standard 300 mm diameter vitreous enamel on steel marker used by EHA.

Copy of the interpretation:



13 Photographs:

Wheelers Bridge from the south east abutment.
Image: Richard Venus 2013

Crowd at the ceremony and the "Bean Me Up" coffee van.
Image: Paulette Pleasance

Crowd at the ceremony. It was a cold and windy but fine moirning.
Image: Owen Peake

Mayor, Bill McClenaghan speaking at the ceremony.
Image: Owen Peake

Marlene Kanga and Owen Peake with the interpretation after the ceremony.
Image: Emily James

Attachment 1 - Advertising Flyer

Wheelers Bridge Engineering Heritage Recognition Ceremony

Engineering Heritage Victoria

The 113 year old Wheelers Bridge has been identified by Engineering Heritage Australia's Heritage Recognition Program as one of the earliest bridges built by Monash & Anderson to the Monier Patents in Victoria.

The National Heritage Recognition Program conducted by Engineers Australia through Engineering Heritage Victoria will unveil an interpretation panel and Engineering Heritage Marker near Wheelers Bridge. Speakers at the ceremonies will outline the significance of Wheelers Bridge.

Wheelers Bridge is a very early example of a reinforced concrete bridge and is the third bridge in Victoria built to the Monier patents. The bridge was designed by Monash and Anderson and this company also carried out much of the construction. The bridge was completed in early 1900 and was tested and opened on 30 March 1900.

It was named Wheelers Bridge after James Henry Wheeler who represented the district in the Legislative Assembly for more than 20 years between 1864 and 1900.

Despite early concerns over the safety of the spandrel walls which were bulging outwards, the bridge still stands today. It carries the Creswick-Lawrence Road over Birch Creek. A 15 tonne load limit has now been applied. It is apparent that there have been several incidents causing damage to the parapet walls by vehicle impact. The aesthetics of the bridge are somewhat spoilt by this damage and displacement of parts of the parapet walls.

Saturday 15 June
9:45am for 10am - 11am

Wheelers Bridge
(south side of Birch Creek)
Creswick-Lawrence Road, Lawrence

Directions to Ceremony
From Creswick take the C291 north-west towards Clunes; about 3.45 km north of Creswick turn right onto the Creswick to Lawrence Road; drive 8.15 km north (this road is straight and runs almost due north) and park on the left hand road verge just before the cutting which dips down to Birch Creek and Wheelers Bridge.

VicRoads Country Street Directory
Map 58, Reference G7

Event Contact:
Emily James
Programs Coordinator
Engineers Australia Victoria Division
03 9321 1715
ejames@engineersaustralia.org.au

Hepburn Shire Council

ENGINEERS AUSTRALIA

Attachment 2 - Running Sheet

ENGINEERS AUSTRALIA VICTORIA DIVISION
ENGINEERING HERITAGE VICTORIA
ENGINEERING HERITAGE RECOGNITION PROGRAM

WHEELERS BRIDGE
At site 15 JUNE 2013

RUNNING SHEET

Ceremony to be held on the north bank of Birch Creek, north of Creswick, adjacent to a large gum tree under which the interpretation panel has been erected.

Unveiling of Engineering Heritage National Marker and Interpretation Panel

PROGRAM - COMMENCING 10:00 AM

- Welcome by Master of Ceremonies (MC), Mr Mike Caldwell from EA Ballarat Group
    - 'Acknowledgment of Country' as follows: I would like to acknowledge the traditional custodians of the land on which we are meeting as being part of the Kulin Nation.
    - Acknowledgment of Distinguished Guests and Apologies.
    - Invite everyone to read the handout booklet to understand more about the history of Wheelers Bridge.

  5 minutes
- National President of Engineers Australia, Dr. Marlene Kanga

  6 minutes
- Mayor of Hepburn Shire Council, Councillor Bill McClenaghan

  6 minutes
- MC Mike Caldwell will speak about the life and contributions of General Sir John Monash

  6 minutes
- MC invites Dr Marlene Kanga and Cr. Bill McClenaghan to unveil the marker and interpretation panel 5 minutes

- Closing Remarks (MC)
    - To include thanks to the following:
        - Hepburn Shire Council
        - The staff of Engineers Australia, Victoria Division
        - Mr Richard Venus who carried out the graphic art work on the interpretation panel.
        - All of the speakers at this ceremony.

  5 minutes

TOTAL 33 minutes

End of ceremony scheduled for 10:33 AM

LIST OF PROSPECTIVE SPEECH TOPICS

Dr. Marlene Kanga, National President, Engineers Australia

- The role of Engineers Australia in outreach to the community
- The national Heritage Recognition Program

Cr Bill McClenaghan, Mayor of Hepburn Shire Council

- Importance of Wheelers Bridge to the community
- Councils plans for Wheelers Bridge

Mike Caldwell

- The life and contributions of General Sir John Monash.

LIST OF DISTINGUISHED GUESTS PRESENT

- Cr. Bill McClenaghan, Mayor of Hepburn Shire Council
- Cr Don Henderson, Deputy Mayor, Hepburn Shire Council
- Councillors of the Hepburn Shire Council:
  - Cr Greg May
  - Cr Neil Newitt
  - Cr Kate Redwood AM
- Ms Marlene Kanga, National Deputy President, Engineers Australia
- Councillor Madeleine McManus, member of National Council, Engineers Australia
- Mr John McIntosh, President, Victoria Division, Engineers Australia.
- Ms Glenda Graham, Executive Director, Victoria Division, Engineers Australia.
- Mr Henk DeDeugd, Chair, Ballarat Regional Group. Engineers Australia
- Mr Owen Peake, Chair, Engineering Heritage Victoria.
- Mr David Henderson, Vice President, Creswick & District Historical Society
- Mrs Margaret Fullwood, Curator, Creswick & District Historical Society
- Mrs Val Lawrence, Honorary Secretary, Creswick & District Historical Society
- Mr Richard Russell, Chairman, Monash Engineering Foundation, Monash University

- Dr Peter Rogers, Managing Director, ICC

LIST OF APOLOGIES RECEIVED

- Mr Stephen Durkin, Chief Executive, Engineers Australia.
- Mr John Heathers, Chair, National Board, Engineering Heritage Australia.
- Mr Aaron van Egmond, Chief Executive Officer, Hepburn Shire Council
- Senators for Victoria:
  - Senator Helen Kroger
  - Senator Bridget McKenzie
- Hon Catherine King, Member of the House of Representatives for Ballarat
- Members of the Legislative Council of Victoria:
  - Ms Gayle Tierney (Member for Western Victoria)
  - Mr David Koch (Member for Western Victoria)
- Hon Edward O'Donahue, Minister for Corrections and Minister for Crime Prevention
- Mr Jochen Helper MLA for Ripon
- Ms Elizabeth Vines OAM, President, Australia ICOMOS
- Ms Helen Wilson, Secretary, Australia ICOMOS
- Ms Georgia Meros, Australia ICOMOS Secretariat
- Mr Kevin O'Sullivan, Treasurer, Australia ICOMOS
- Mr Michael Queale, Vice President, Australia ICOMOS
- Mr David Eltringham
- Mr Richard Venus
- Mr Murray Purkiss, Chair, Bendigo Regional Group, Engineers Australia
- Mr David Craddock, President, Australian Society for History of Engineering and Technology
- Ms Annie De Jong, Executive Manager, Information Services, City of Ballarat
- Mr Merv Lindsay, National Past President, Engineers Australia
- Cr Sebastian Klein, Hepburn Shire Council

Attachment 3 - Speech Notes - Marlene Kanga

Engineering Heritage Recognition Program

for Wheelers Bridge Ballarat Victoria

Presentation Speech by Dr Marlene Kanga, National President, Engineers Australia

15 June 2013

Mayor McClenaghan, Councillors for Hepburn Shire Council, Division President John McIntosh and members of Engineers Australia, Distinguished Guests, Ladies and Gentlemen:

It gives me great pleasure to be here today to mark an achievement in engineering. Everything you see around you involves engineering. Clean water supply, the roads you drove on this morning, the cars that brought you here, the clothes you are wearing and even the pacemakers and other medical devices that some of you may have, involve engineering. More than that, it involves creative thinking, problem solving and leadership. In a word, it involves engineering innovation.

Engineering and innovation are peas in a pod. Both are vital to Australia. As a small nation with a highly educated and highly paid workforce, Australia needs more engineering and more innovations. This is where we have a comparative advantage, we need to develop industries that require high brains, enormous creativity and have high barriers to entry. This will be the new wealth of Australia, we can no longer rely on the boom and bust cycles of commodity prices or have an economy that rides on the sheep's back, we need a long term vision that involves engineering.

That long term vision by innovative engineers and entrepreneurs led to the design and construction of Wheeler's Bridge being recognised here today.

The engineering represented by this bridge, has provided economic and social benefits to Ballarat and to Victoria. Think how different life would have been if this bridge had not been built. Ballarat would have been a different place. The bridge made an important contribution to the road network and along with the increasing use of motor vehicles, contributed to the development of regional Victoria. Improved transportation of goods to market is similar to the NBN and internet today which facilitates the communication of information and virtual services to a global market. It is fitting that we recognise the important contribution that the engineers have made and will continue to make to Victoria, to Australia and to the world.

Engineers Australia is the professional body that represents the engineering profession in Australia. We represent all engineering disciplines and have a key role in maintaining standards for engineering education and professional development. Importantly we have a role to serve the community by informing you of the important issues related to engineering and the contributions of engineering to modern Australian life.

The Engineers Australia Engineering **Heritage Recognition Program**

is an important part of our role and provides public recognition of engineering works which have historic or heritage significance and to the engineers who created them. This encourages the conservation of our engineering heritage and helps the community to understand engineering and the enormous contribution engineering makes to all aspects of our lives.

The **Heritage Recognition Program** has been active since 1984 and there are over 170 historic engineering works Australia-wide that have been recognised for their engineering heritage. These awards are not given lightly. A formal nomination is prepared to present the history of the work and its heritage significance, under criteria similar to those used for listing on heritage registers around Australia. The nomination is assessed by the national panel which decides whether an award is justified. There are three levels of award: International, National and State.

The engineering heritage sites and works represent different aspects of engineering with the works coming from many differing times in our national history. For example, early Colonial works that have been recognised include the Great North Road which was built from Sydney north to the Hunter Valley and the convict-built bridges in Tasmania.

The building of the core of the Victorian railway network was another great feat achieved during the second half of the 19th century. Amongst other places, this brought the railway to Ballarat, Bendigo and Castlemaine at the time of the gold rush.

Another great work of that era was the Melbourne sewerage scheme with its treatment farm at Werribee and the great pumping station at Spotswood on the Yarra River. When completed around the turn of the 20th century it was one of the greatest sewerage systems in the world and which has improved the health and well-being of millions of people in Victoria.

Great nation-building works of the 20th century such as the Sydney Harbour Bridge and the Snowy Mountains Scheme have also been recognised.

Today we have come to recognise the Wheeler's Bridge for its engineering heritage for several reasons:

1. It is a great example of infrastructure works completed in the late 19th century and very early 20th century.

2. It was completed in 1900 and is a classic example of what we want to remember - good engineering, still in service after 113 years – a tribute to the design and engineering of the time.
3. It was designed by that great Australian engineer and leader - General Sir John Monash, who had a profound effect on Australian life, from his leadership in the Great War to his engineering works and his contribution to life in Victoria, until his death in 1931.
4. Most importantly, it represents innovation, it is one of the first bridges to be built using the patented Monier arch design which uses reinforced concrete. It demonstrates Monash's foresight and vision and shows the benefits of engineering innovation can have a multiplier effect several thousand times fold and always greater than even the innovator, Sir John Monash could have imagined. Lessons learned here have no doubt contributed to new ideas in bridge design and construction and improving infrastructure around Australia and the world.

I have much pleasure in presenting this Engineering Heritage Marker to the city of Ballarat on behalf of Engineers Australia. An interpretation panel has also been prepared to provide the facts and history which contribute to the significance of this bridge. I hope it will inspire a new generation of Australians to imagine the possibilities with engineering as a career because engineering does enable and empower you to change the world and make it better for all.

Dr. Marlene Kanga FIEAust CPEng
National President
Engineers Australia
15 June 2013.

Attachment 4 - Speech Notes - Bill McClenaghan

- **Distinguished Guests, Ladies and Gentlemen.**

- **One of the most important things which Councils do is to provide the population living or working in or travelling thorough our municipalities with roads.**

- **With roads come bridges. Whenever there is an obstacle to be crossed a bridge has to be built. In this case the obstacle is Birch Creek. The provision of bridges is a major task for Councils; even in relatively flat terrain such as we see here considerable investment is required to provide adequate bridges.**

- **These bridges have to be able to cope with flood conditions, changing road requirements (such as heavier and heavier trucks) and have to be maintainable over a very long period of time.**

- **In the case of this bridge the environment around it has changed a lot since it was built 113 years ago.**

- **Back in the early days there were more smaller settlements. Small hamlets and villages were needed as transport was less efficient than we experience today. The whole Australian community was more decentralised with a larger proportion of the population living on the land or in the small towns and**

villages which almost entirely existed for the purpose of providing services to their local communities.

- **In this area there was also another perspective which led to the need for towns, roads and bridges - it was a gold mining area. You can still see the mullock heaps from those mines around this Shire.**

- **The local road network also provided the connections needed to the outside world. In the inland areas that was most importantly a connection to the railways. The railways carried everything from the milk, the mail and papers through to wheat, livestock and farm and mining machinery.**

- **Much of the traffic on the roads in those days was horse-drawn - people rode horses, most families owned a horse-drawn vehicle and farms typically had a range of horse-drawn vehicles for various purposes. The highways were served with fast, regular (if not very comfortable) coach services.**

- **However there was other traffic on the roads. For heavy loads bullock wagons were in common use and sometimes the steam traction engine replaced the bullock team to deliver a very heavy load. Traction engines and bullock wagons were very heavy vehicles and the bridges on the roads had to be able to cope with these heavy loads much that same way that today we have to provide bridges capable of carrying heavy trucks.**

- **About the time that this bridge was built the motor car started to become a common sight on our roads. Car ownership in the early 20th century was**

largely limited to people with plenty of money but farmers soon found the value in having cars and mass production brought the price of cars down dramatically. Now almost every family owns one car, or maybe several.

- **Other changes in the way roads are used occurred as the decades passed. On the farm the horse was largely replaced by the tractor in the years around World War II. So the roads were used to move ever-larger farm machinery around the Shire, hauled by tractors of ever-increasing size.**

- **There were also social changes which affected the road system. Smaller villages gave way to larger regional towns and some services moved from regional towns to larger cities. The trend for greater urbanisation continues in Australia to this day.**

- **Councils over the years had to cope with all these changers and build or adapt road systems to accommodate them. That particularly applied to bridges which typically had defined load limits and had to be replaced, strengthened or widened as the needs of road users evolved.**

- **So that brings us to Wheelers Bridge and to the early 21st century.**

- **Wheelers Bridge has served the community well. The people in the Council of the day who had it built, and the contractors who built it, seemed to have had a strong sense of what the future would hold. They built a bridge to last and one which would meet most needs put on it more than a century after it was built. Surely we should give our forebears great credit for such foresight.**

- **Nevertheless Wheelers Bridge has had a hard life and it now needs some attention.**

- **Should Council repair it and adapt it for long term future use? Should it be strengthened to accommodate the ever-increasing weight of truck traffic? Should the Council replace it by a more modern bridge?**

- **The Council is now grappling with these issues and has engaged consultant to help us to explore all the options. This report will probably still face the Council with difficult decisions.**

- **In the meantime our friends from Engineering Heritage Victoria have highlighted the considerable heritage values of this bridge with its unusual "Monier patent" construction and its powerful associations with General Sir John Monash.**

- **When we have all the facts at our fingertips we will make appropriate decisions. These may not be easy decisions and they may not please everyone. Nevertheless the Council will make a decision.**

- **Thank you.**

Attachment 5 - Speech Notes - Speech Notes in relation to General Sir John Monash

Presented by MC Mike Caldwell.

Today we are assembled at an historic Engineering structure – a "Monash bridge". However, we are not only acknowledging the importance of this structure, but also acknowledging a great man and a great Australian:

General Sir John Monash, GCMG, KCB, VD – 1865 – 1931

Engineer – Leader _ Soldier _ Administrator – Humanitarian

- **President, Victorian Institute of Engineers, 1912 - 1913**
- **Commander of 4th Infantry Brigade 1st AIF landed at Anzac Cove 25 April 1915**
- **General Officer Commanding the Australian Army Corps, France 1918**
- **Chairman, State Electricity Commission of Victoria, 1921 – 1931**
- **Vice Chancellor, University of Melbourne, 1923 - 1931**

Monash was born in Melbourne of German Jewish parents. He was educated at Scotch College, and graduated from the University of Melbourne with degrees in Engineering (Civil), Law and Arts.

Monash had a colourful early life in Melbourne and was much involved in Melbourne society, whilst pursuing his early Engineering career and, indeed, defending it, as his own legal representative.

We, as Australians, and indeed Victorians, know of the name "Monash" which is attributed to many icons in our community. We have the Monash Freeway, the City of Monash, and of course Monash University. But many do not recognise the contribution made by Monash to life as we know it, some 80 years since his passing.

As indicated, Sir John provided the vision and leadership that established the State Electricity Commission of Victoria, an enterprise which has given Victoria an economic edge by the generation of affordable power from our brown coal resources - a Monash achievement.

Also, we all acknowledge our impressive Shrine of Remembrance in St Kilda Road, perhaps one of the most significant War Memorials in the world. The Shrine was a Monash vision that he wanted dedicated to the everlasting memory of the 1st AIF and the 60,000 supreme sacrifices made by those troops under his command. Monash wanted the Shrine to be a place of remembrance and not a celebration of triumph.

Perhaps the most ongoing stamp on our culture was the celebration by Monash of the first Anzac Day in 1916. Monash arranged a solemn observance ceremony at the Australian Army camp at Suez Canal in Egypt for all who had served at Gallipoli.

The day of 25 April 1916 was acknowledged by Monash as a day of remembrance and nominated by Monash as a holiday for the troops – "A famous day – our day". The tradition lives on, thanks to Monash.

The achievements of Monash in World War 1 are many and are well documented. However the Battle of Hamel on 4 July 1918 where American troops were, for the first time, put under his command, was an exceptional military victory accredited to his powers of planning and execution. It was the beginning of the end of World War 1. The Battle of Hamel was planned by Monash to last 90 minutes - the objective was achieved in 93 minutes.

This battle, plus others at Amiens on the Western front, concluded with General Monash being knighted on the battleground by King George V on 12 August 1918, the last Commander to have received such an honour in the field and the first to be so knighted for the previous 200 years.

But General Sir John Monash was more than a great soldier. He was a great humanitarian who was always aware of the welfare of his troops and the need to limit casualties at all cost. It was fitting that at the end of the War, the General was given the daunting task of repatriating 300,000 Australian troops from Europe to Australia and then overseeing their rehabilitation back into Australian civil life.

Monash was President of the Victorian Institute of Engineers, 1912 – 1913, a forerunner of our Institution of Engineers Australia and he was a significant contributor to our Engineering heritage.

Monash was Vice Chancellor of the University of Melbourne from 1923 until 1931 and during that time is remembered too for reactivating members of his loyal 1st AIF to secure Melbourne during the 1923 Victoria Police strike.

General Sir John Monash passed away on 8th October 1931.

It is estimated that 300,000 mourners paid their respects at the largest funeral seen in Australia to that time. Monash had lain in State at Queens Hall, Parliament House and it is estimated that over 50,000 ex-servicemen had paid their respects.

Today the face of Sir John is printed on our nation's highest valued currency, the $100 banknote as a constant reminder of the contribution of this great man to our nation.

Sir John Monash – Engineer, Leader, Soldier, Administrator, Humanitarian – a truly great Australian.

DJ Eltringham
3 June 2013

Attachment 6 - Media Release

MEDIA RELEASE

ENGINEERS AUSTRALIA

11 June 2013

Wheelers Bridge recognised in formal heritage ceremony

Engineers Australia's National President, Dr Marlene Kanga, will recognise the 113-year-old Wheelers Bridge as an engineering heritage site in a formal ceremony to be held on Saturday in Lawrence, Victoria.

"Wheelers Bridge is one of the oldest reinforced concrete bridges in Australia. It is historically significant because it represents evolutionary techniques of bridge building," said John Heathers, Chair of the Engineers Australia National Board of Engineering Heritage Australia.

"Carrying traffic across Birch Creek between Lawrence and Creswick, Wheelers Bridge was completed in 1900.

"Built by Monash & Anderson to the Monier Patents in Victoria, the bridge demonstrates excellence in engineering using the 'Monier concrete arch construction' method; which was used in the construction of road bridges more than a century ago.

"The Monier method is no longer used in bridge building, however some Monier bridges are still in service today, more than a century after construction.

"The Engineering Heritage Marker recognises the significant historic engineering work behind Wheeler's Bridge as providing a very firm basis for bridge design and construction for the modern day," Mr Heathers said.

Event details:

Event: Engineering heritage landmark ceremony Wheelers Bridge, hosted by Engineers Australia and the Hepburn Shire Council
Date: Saturday 15 June 2013
Time: 9.45am for 10am
Venue: Lawrence, Victoria
Directions: From Creswick take the C291 north-west towards Clunes; about 3.45 km north of Creswick turn right onto the Creswick to Lawrence Road; drive 8.15 km north (this road is straight and runs almost due north) and park on the left hand road verge just before the cutting which dips down to Birch Creek and Wheelers Bridge.

For more information please visit: http://www.engineersaustralia.org.au/events/wheelers-bridge-engineering-heritage-recognition-ceremony

-ENDS-

Media Contact:
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Attachment 7 - EA Magazine Article

Wheelers Bridge, Heritage Recognition of 113-year-old reinforced concrete bridge

An interpretation panel and Engineering Heritage Marker were unveiled at Wheelers Bridge, 20 km north of Ballarat on 15 June 2013. Engineers Australia National President Marlene Kanga compared Wheelers Bridge, in service for 113 years, with the current development of the NBN - engineering innovations of their respective times delivering “game changing” outcomes for their communities. Hepburn Shire Council Mayor, Councillor Bill McClenaghan commented that although the bridge was still in service it had deteriorated and needed to be restored. The Council has already commenced engineering investigations of options for the future of the bridge.

About fifty people attended the ceremony on a cold and windy Saturday morning however it did not rain despite it being a wet and stormy week in Victoria.

There had been an earlier bridge over Birch Creek at this site since 1866. The bridge served local communities and farms as well as a significant local deep lead gold mining. The original wooden bridge had deteriorated by the late 19th century. In 1898 the Melbourne firm Monash and Anderson, who held the rights over the Monier arch bridge patents in Victoria, were involved in discussions for the building of a new reinforced concrete bridge. Drawings and specifications for a Monier arch bridge were presented to the Council in July 1898 and the Council let a contract to Jenkins Bros of Ballarat to build some elements of the bridge in December 1898.

The contract work went slowly and there were many disputes however Jenkins Bros did complete the foundations, abutments, central pier and the mass concrete ‘skewbacks’ on which the ends of the arches would rest. In September 1899 a special gang of Monash and Anderson’s workers, directed by Anderson himself, cast the first arch strips, comprising half the width of the bridge over both spans.

In October 1899 the Council terminated the contract with Jenkins Bros and Monash and Anderson undertook the remainder of the work. John Monash played a significant role in the later work on the bridge. The bridge was tested with two steam traction engines and officially opened on 30 March 1900.

Wheelers Bridge was the third Monier arch bridge to be built in Victoria and the second of a total of seventeen[1] built by Monash and Anderson in Victoria before World War I.

Owen Peake
Engineering Heritage Victoria

Photograph Captions

1) Engineers Australia National President Marlene Kanga and Engineering Heritage Victoria Chair Owen Peake after the unveiling of the interpretation panel and marker.
Image: Emily James

PHOTO ID: Wheelers 123

2) Wheelers Bridge today after 113 years of hard use.
Image: Richard Venus

PHOTO ID: Wheelers Bridge.Richard Venus.IMGP2148

[1] Owen Peake, David Beauchamp, Nomination for the Heritage Recognition Program, Wheelers Bridge, Creswick, Engineering Heritage Australia, 2013, Appendix 5, page 42. This total does not include the Morell Bridge with which Monash & Anderson had only limited involvement.

Attachment 8 - EV Newsletter Article

Heritage Recognition of Wheelers Bridge

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About fifty people attended the ceremony on a cold and windy Saturday morning however we were lucky that it did not rain despite it being a wet and stormy week in Victoria.

There had been an earlier bridge over Birch Creek at this site since 1866. The bridge served local communities and farms as well as a significant local deep lead gold mining. The original wooden bridge had deteriorated by the late 19th century. In 1998 the Melbourne firm Monash and Anderson, who held the rights over the Monier arch bridge patents in Victoria, were involved in discussions for the building of a new reinforced concrete bridge. Drawings and specifications were presented to the Council in July 1998 and the Council let a contract to Jenkins Bros of Ballarat to build parts of the bridge in December 1998.

The contract work went slowly and there were many disputes however Jenkins Bros did complete the foundations, abutments, central pier and the mass concrete 'skewbacks' on which the ends of the arches would rest. In September 1899 a special gang of Monash and Anderson's workers directed by Anderson himself, cast the first arch strips, comprising half the width of the bridge over both spans.

In October 1899 the Council terminated the contract with Jenkins Bros and Monash and Anderson undertook the remainder of the work. The bridge was tested with two steam traction engines and officially opened on 30 March 1900.

Wheelers Bridge was the third Monier arch bridge to be built in Victoria and the second of a total of seventeen[2] built by Monash and Anderson in Victoria before the World War I.

[2] Owen Peake, David Beauchamp, Nomination for the Heritage Recognition Program, Wheelers Bridge, Creswick, Engineering Heritage Australia, 2013, Appendix 5, page 42.

Owen Peake
Engineering Heritage Victoria

Photograph captions

1) Engineers Australia National President Marlene Kanga and Engineering Heritage Victoria Chair Owen Peake after the unveiling of the interpretation panel and marker.
Image: Emily James

PHOTO ID: Wheelers 123

2) Wheelers Bridge today after 113 years of hard use.
Image: Richard Venus

PHOTO ID: Wheelers Bridge.Richard Venus.IMGP2148

Attachment 9 - EHA Magazine Article

Heritage Recognition of Wheelers Bridge - an early Monier Arch bridge

An interpretation panel and Engineering Heritage Marker were unveiled at Wheelers Bridge, 20 km north of Ballarat on 15 June 2013. Engineers Australia National President Marlene Kanga compared Wheelers Bridge, in service for 113 years, with the current development of the NBN - engineering innovations of their respective times delivering "game changing" outcomes for their communities. Hepburn Shire Council Mayor, Councillor Bill McClenaghan commented that although the bridge was still in service it had deteriorated and needed to be restored.

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General Sir John Monash (1865 - 1931) worked in various engineering roles until the formation of Monash and Anderson in June 1884.[4] In 1905 he started the Reinforced Concrete & Monier Pipe Construction Co which continued to develop the use of reinforced concrete in Victoria. Following a brilliant military career in World War I Monash became Chairman of the State Electricity Commission of Victoria and led the effort to use Latrobe Valley brown coal to generate electricity.

The engineering career of Joshua Anderson (1865 - 1949) has been overshadowed by Monash's military fame. He was skilled in various disciplines and later worked as a municipal and consulting engineer in New Zealand and Victoria.

Owen Peake
Engineering Heritage Victoria

Photograph captions

1) Engineers Australia National President Marlene Kanga and Engineering Heritage Victoria Chair Owen Peake after the unveiling of the interpretation panel and marker.
Image: Emily James

PHOTO ID: Wheelers 123

2) Wheelers Bridge today after 113 years of hard use.
Image: Richard Venus

PHOTO ID: Wheelers Bridge.Richard Venus.IMGP2148

[4] Geoffrey Searle, John Monash - A Biography, Melbourne University Press, 1982, page 116.

Attachment 10 - Invitation Letter typical wording

Date

Dear .....

Engineers Australia Victoria Division, in conjunction with Hepburn Shire Council, cordially invite you to attend:

The Wheelers Bridge
Engineering Heritage Marker
Dedication Ceremony

Saturday 15th June 2013, 10:00 am

On the south side of Birch Creek. on the Creswick to Lawrence Road, 11.6 km north of Creswick
VicRoads Country Street Directory, Map 58, Reference G7

The National Heritage Recognition Program conducted by Engineers Australia through Engineering Heritage Victoria will unveil an interpretation panel and Engineering Heritage Marker near Wheelers Bridge. Speakers at the ceremonies will outline the significance of Wheelers Bridge.

Wheelers Bridge is a very early example of a reinforced concrete bridge and is the third bridge in Victoria built to the Monier patents. The bridge was designed by Monash and Anderson and this company also carried out much of the construction. The bridge was completed in early 1900 and was tested an opened on 30 March 1900. The bridge still carries the Creswick to Lawrence Road over Birch Creek.

Directions to site: From Creswick take the C291 north-west towards Clunes; about 3.45 km north of Creswick turn right onto the Creswick to Lawrence Road; drive 8.15 km north (this road is straight and runs almost due north) and park on the left hand road verge just before the cutting which dips down to Birch Creek and Wheelers Bridge.

For more information or to register, please visit:
www.engineersaustralia.org.au/victoria-division/events
or contact the Engineers Australia Victoria Division on (03) 9321 1709.
This event is free

I hope to meet you there.

Yours sincerely,

Glenda Graham
Executive Director
Victoria Division

Attachment 11 - Thank You letter typical wording

Dear .....

On behalf of Engineers Australia, Victoria Division and Engineering Heritage Victoria, I would like to thank you for your support of the Wheelers Bridge Heritage Recognition Ceremony on 15 June 2013.

The event was very successful and the marking of the site is an important step to inform present and future generations of Australians of the significant heritage values of Victorian engineering.

Events of this nature are valuable to Engineers Australia to inform and inspire the engineering profession about the importance of the heritage of engineering and are equally important to the local communities in which significant engineering heritage sites are located to inform the public and instil a sense of civic and community pride in the achievements of the community.

Yours sincerely

John McIntosh
B.E (Hons), B.Bus., FIEAust, CPEng, EngExec, NPER, MAICD
Division President
Engineers Australia
Victoria Division

18 June 2013

Report prepared by:

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